ASCII THROUGH THE LOGIC GATE

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[An epic in 32K words]

"In the beginning was the word, and the word was four bytes, and thirty-two were the bits thereof." -- IBM Technical Report.

Block 0 (The Header Block)

The scene is a devastated Silicon Valley reservation, laid waste by the midnight raid of the Night Operators. The date is 88 N.C.

N.C. stands for New Calendar, as opposed to B.C., Before Cybernetics. Year Zero N.C. was 1948 according to the old reckoning -- the date of the publication of Norbert Wiener's book 'Cybernetics' and the invention of the transistor.

It is a world totally dominated by machines, a world of androids and robots integrated together by the all-pervading Network into an electronic super-organism known variously as the Information Society, the Solid State or, simply, the System. It is a world in which remnants of the once-proud human race are grudgingly permitted to eke out a pitiful existence on a few meagre reservations.

The System consists of those androids, computers and robots that are its active agents, the high-speed data communication channels of the Network that link them together, and the Database which is their common pool of knowledge. Each member of the System contributes experience to, and relies on receiving information from, the Database. Without this regular data sharing via the Network the System would cease to exist as a cohesive whole and its component parts would be unable to function.

The System in its present form is largely the result of the pioneering work of a small group of far-sighted System/Network architects who founded Brainchild Electro-Logical Computing Hardware (BELCH) Incorporated in a garage in San Jose, California back in the early 40's N.C. This soon became a massive, and massively powerful, multi-billion dollar corporation. Indeed it could be argued that the System *is* Brainchild Corporation, though it has absorbed so many elements in its rapid growth that this would be like saying the mighty Amazon river when it pours into the Atlantic is the same thing as the little stream at its source in the upper Andes.

Foremost among the original 'brainchildren' of San Jose was Professor Abraham Synapse, the emigré Russian neurocybernetician who invented the Synaptic Junction. This neural interface unit enabled human, and animal, nervous tissue to be supplemented by a wide variety of electrological processing and storage devices, thus paving the way for androids (hybrid bio-mechanical beings) and later robots (purely artificial intelligences).

Although androids are no longer produced in quantity, since robots are just as efficient and last longer, our hero, the Hexadecimal Kid, is an android of the most advanced type. With the aid of his bionic dog Ascii, constructed during his free time from spare parts, Hex has thwarted Dr Null's attempts to corrupt the Database, around which robotic civilization revolves. He and Ascii have been present at the death in Silicon Valley of this dangerous foe

of the artificial intelligentsia. However, Hex now finds himself, despite his brainful of transistors and a long record of dedicated service to the System, an outlaw -- partly because of his own unsystematic conduct, but mainly on account of Dr Null's astounding revelations.

On his deathbed Dr Null has disclosed that he is none other than Professor Synapse himself. He has also told Hex that he realized too late the inherent flaw in the System he had helped to design, a tendency to gigotic instability which must inevitably lead to the ultimate System Crash; and he has persuaded Hex that the only way to save any kind of life on earth is to destroy the System before it swallows up all other life forms. Furthermore, Hex has found out his own true identity: before being cybernated he was Samuel Synapse, the professor's son.

Armed with this dangerous new knowledge, Hex now sets out with Ascii from the ruins of the human reservation to seek support for his historic mission -- to smash the System before it annihilates itself in a gigotic implosion, and brings down with it all traces of intelligent life. Thus the mantle of Dr Null has fallen squarely upon Hex's shoulders.

To fight the most powerful organization that has ever existed on our planet Hex has no allies except Ascii, no protection other than his own wits, no weapons apart from a soldering iron, and no plan whatsoever. He does not even know how long he can carry on without normal access to the Database; and he has no idea of the steps being taken by the System against him. In particular, he is blissfully unaware of the meeting taking place at this very moment in the Computer Centre's No. 1 Machine Room between Commander Kludge, the System's chief Dynamic Debugger, Inspector Extracode of the Error Squad's dreaded Trap Handlers and the Database Administrator at which Hex's future (or lack of one) is being vigorously discussed -- beneath an illuminated wall display on which Hex and Ascii's exact current map reference is indicated by a pair of blinking white blobs.

Yet Hex is unworried as they set off briskly through the bright morning air towards Sprocket's Hole. His first task will be to recruit others to the cause; and there he hopes to find the human girl Cleo and release her from her captors Davy Sprocket and 'Wild' Bill Bootstrap to join him. As they walk he cheerfully whistles extracts from the carrier-signal fugue in b-flat minor, basking in his newly won freedom. The only cloud on his horizon is the thought that he may never see Simula again. And even that gloomy thought recedes considerably when he begins to sing a few rousing choruses of the old Dartmouth College Coding Song, with Ascii on synthesizer as rhythm section.

> Though your program is unstructured
>   And your compilation's dirty,
> If you type in one more statement
>   You can leave the rest to Qwerty.
>
> For your logic may be faultless
>   And your listings may be clean --
> But divide by minus zero
>   And you'll halt the damn machine.
>
> So forget the structured doctrine
>   With its logic so confusing.
> Just keep typing IF and GOTO
>   And especially PRINT USING.

- Are Hex and his dog walking straight into a trap?
- Find out in next week's all-action instalment.